



Advancing Capacity for Climate Change Adaptation (ACCCA)

Analysis and Evaluation of the Pilot Action

Project Report

Project Title	RISK COMMUNICATION FOR ADAPTING TO CLIMATE CHANGE – Communicating risk to policy makers and vulnerable community for assisting planning process in adaptation strategy to climate change at district level.
Country	India
Project site(s)	Bundelkhand region of central India
Project Leader(s)	Mrs. Indira Mansingh
Monitoring Team(s)	
Project Objectives	<ol style="list-style-type: none">1. To assess, in a participatory manner, vulnerability of the agriculture sector to current and potential climate change in the region.2. To design and validate risk communication products targeted to district level decision makers and vulnerable communities (different social groups, gender).3. To devise site-specific pragmatic adaptation strategies in one representative district by engaging all concerned stakeholders, utilising their multidisciplinary skills.4. To promote integration of adaptation strategies into developmental policies of other 12 districts of Bundelkhand region by disseminating the knowledge gained using the tested risk communication strategies/products and pilot implementation.5. To facilitate two ways communication and system between community and policy makers.



I. Activities

A. Project Activities Planned & Status

Planned Activities	Status and Description
Team Mobilization	<p>Completed: A multidisciplinary integrated assessment team (the core team) involving Development Alternatives and Indian Institute of Tropical Meteorology (IITM) was constituted.</p>
<p>Participatory Vulnerability Assessment comprising</p> <ul style="list-style-type: none"> o Technical Assessment o Participatory Assessment 	<p>Completed;</p> <p>Technical Assessments: As part of the technical assessment, future climate change scenarios for the region have been developed by IITM Pune using the PRECIS simulations. The scenarios pertain to a baseline period of 1961-90 with observed GHG emissions (3 member ensemble) and for one future time slice of 2071-2100 with A2 and B2 GHG emission scenarios (3 runs for A2 and 1 run for B2). The key findings from the climate scenario development are that temperatures throughout the year are likely to be higher in the range of 2-3.5° C in the Bundelkhand region; monsoon precipitation is likely to shift from July to August and winter temperatures to become erratic from the 1960-1990 scenarios.</p> <p>The impact of climate change on the most important crops namely wheat (as a staple food) and soybean (as a cash crop) have been assessed using the Infocrop agricultural model. The outputs from model generated climate change scenarios were used as inputs for the crop model. The key findings from this exercise were that since winter temperatures will be erratic, the yields of wheat – which is the staple crop in the region – may be affected negatively (-25%-50%); days required for anthesis and maturity may be reduced by 3-12; additional weeds and pests may crop up. All this will put a severe strain on the food security in the region.</p> <p>Participatory Assessments: This has been done by using Participatory Rural Appraisal (PRA) techniques, including questionnaire surveys (240 households in 12 villages) and focused group discussions. The key findings of these include that the people in the region have extremely Low social capital affecting adaptive capacity. This is evident from the fact that there are:</p> <ul style="list-style-type: none"> a. few groups and networks functional (which determines the level of information dissemination and collective decision making) b. low degree of trust and solidarity (which indicates belief in support from others in case of crisis)



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	<p>c. low degree of collective action and co-operation (that determines ability to undertake collective action for adaptation measures)</p> <p>d. few sources of information and means of communication (determining the ability to disseminate knowledge about adaptation measures and other relevant issues).</p> <p>In addition, access of people to basic services from the government is poor, especially with regards to health care, infrastructure, public distribution system and general services such as electricity supply, administrative services etc. Gender inequalities in the region are high as women have very little control over common property resources and even the household decision making. One of the key learning is that communities in Bundelkhand need to be externally supported in building social capital and individuals need to be provided with options and capacity building to use these options for undertaking adaptation and ensuring livelihood security. Lack of these tools and delivery mechanisms for capacity building is a big gap in the present situation.</p>
<p>Devise Adaptation Strategies and Identify Gaps in Critical Knowledge through:</p> <ul style="list-style-type: none"> o Consultation with experts and community members o Identify and prioritize vulnerability reduction options 	<p>Completed</p> <p>To facilitate consultations with the communities and experts on climate change, a campaign, titled Sunehra Kal (Golden Tomorrow) has been launched in the region. The campaign is meant to engage communities, experts and decision and policy makers in proactively discussing and collectively finding solutions to the threat of climate change. Under the campaign, we used the climate assessments from the Meteorological Department and results of climate change projections and impact assessment on agriculture to initiate dialogue with stakeholders. A workshop was organised for dissemination of research results and identifying a way forward. The workshop included stakeholders such as district administration authorities and functionaries, line departments like agriculture, irrigation, agro forestry and forests, research institutions like Bundelkhand University, National Research Centre for Agroforestry and Central Soil and Water Research Institute. A core group with representatives from above has been formed to develop an Action Plan. Similar exercise has been initiated with the communities in 3 villages</p> <p>The process of identification and prioritising vulnerability reduction options is currently on. Institutionally, it is being taken forward by an official Core Group formed in the district. The Core Group comprises representatives from the District magistrate, government line departments, NGOs and local research institutions. It has taken the mandate to identify the vulnerability reduction options available and integrating them in government schemes for large scale promotion</p>



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<p>Design and develop a risk communication Strategy</p> <p>Design and Develop a Risk Communication Strategy</p>	<p>Activity Done.</p> <p>A detailed risk awareness exercise was conducted, primarily done through primary and secondary data and undisguised observations and informal discussions. The exercise revealed:</p> <ul style="list-style-type: none"> ▪ Very Low risk awareness: Community has very low risk awareness related to climate change, water and agriculture. ‘There are too many other problems’ more urgent and immediate than climate change. ▪ High Threshold Level to Adaptation: People are skeptical because they have been looking for relief to come their way. Worse is they are misled by people for self interests against government and other political parties. ▪ People are not used to experimentation of alternatives for livelihood due to years of declining income. <p>To reach out to the vulnerable community and policy makers in an effective manner, certain principles were laid down before going down to the actual task of communication:</p> <ul style="list-style-type: none"> ▪ Ownership: The message of communication needs to be in line with ‘my Bundelkhand’, ‘my people’, ‘I need to do something to solve the issues’. ▪ Change Agents: Those who have migrated out of Bundelkhand have the potential to become Change Agents ▪ Localized Approach: Give the activities and messages a local touch probably with local language/linguistically equipped charts or sessions ▪ Do-able proposals: Since the region has not seen rainfall for four years, the solutions proposed have to be practical enough and hence make a strong impact on the rural community. <p>The first leg of the strategy was to get the government circles to accept the issue of climate change as a crucial one and that it demands immediate action.</p> <p>Communication Strategy for Policy makers: For the policy makers comprising the District Administration, the line departments and local research institutions, the strategy adopted is to initially communicate the risk from climate change and then proceed with mobilizing the people to initiate identification and integration of adaptation strategies in their development planning and research.</p> <p>Communication Strategy for communities: During preliminary assessments, researchers found an excellent standard of folk music / plays, etc., that have been practiced in</p>



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<p>Design and Develop a Risk Communication Strategy</p>	<p>Bundelkhand for centuries. This is, however, slowly becoming restricted to festivities (such as Ram Leela, Holi, etc.) and is mostly conducted by Mandlis (troupes). The people still trust the government representatives. There is absolutely no awareness about the risk of climate change and continuous drought crisis has made the people more concerned about immediate needs and survival.</p> <p>Based on the various assessments, it was realized that communities in Bundelkhand are already on the verge of subsistence and undertaking effective adaptation measures may require modifications in the existing social norms and livelihood patterns. This is, however, a slow and longer term process and communities that are facing survival crisis may not be able to either appreciate or absorb any interventions. It is, therefore, felt that an effective communication strategy would be first present to the communities a menu of practical and viable measures which will lead to immediate benefits, and then to gradually link them to issues of climate change and the need for adopting larger changes to address it</p>
<p>Test Risk Communication Products</p>	<p>Two types of communication products have been tested. One set of products were meant for rural communities while the other set was for the research institutions and policy makers.</p> <p>For the rural communities, awareness raising exercises were conducted in three villages wherein the communication model and materials were tested out and got very interactive participation from the communities.</p> <p>The model included:</p> <ol style="list-style-type: none"> 1. A local sutradhar - or a narrator who maintains the thread of events speaking in the local language - Bundelkhandi. 2. A play in the local language on climate change and adaptation (concept attached). 3. A climate change concept design which can be used for hoardings and posters in Hindi. Attached is the English version. 4. In traditional plays, large hand paintings are used as backdrops through which the narrator journeys, singing and narrating and talking to the audience, seeking responses from them. This was converted into a large chart and the play was enacted by local performers. While we gave the concept, the play was scripted by them. 5. Three songs - one before the play to attract the audience, one in the middle and one at the end. The first one in folk music was in praise of the history and geography of the region, Bundelkhand - Khajuraho, Jhansi ki Rani (Queen of Jhansi - a famous freedom fighter), kings, Alha-udal (renowned soldiers) etc. The second song a happy folk song. After the play - a song about preserving and conserving water. 6. The last part of this model included a meeting between the village community and development professionals from DA with expertise in water and agricultural practices.



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	<p>As regards the policy makers and local research institutions, a half day meeting of the concerned stakeholders was organized on 15th October, 2008, at TARAGram, Orchha, as a first step towards a “Regional Strategy in Climate Change Adaptation”. Prior to the meeting, we developed a brochure communicating the impact of climate change in the area, what can be one, how it might make a difference, and very briefly about the Government of India’s “National Action Plan on Climate Change”. It has been developed in two languages viz. English and Hindi and is being disseminated to a wider audience. We also prepared a concept note for discussion with the decision and makers and stakeholder consultations In addition, a set of slides in MS PowerPoint has been prepared to communicate the research findings and a pictorial PPT with music to depict the impact of climate change in the region. The meeting was intended to share the scientific findings on key Climate Risks, specific to the Bundelkhand region, and identify the way forward to reduce these risks in the region generally and Tikamgarh district particularly. The first half of the meeting was allocated to sharing the research findings, while the later one was completely dedicated to a moderated discussion on way forward. Extensive discussion took place on how to proceed further in a methodical manner. It was decided that a small core group may be created as a first step. It was agreed that the core group should consist of representatives from key Governmentt departments, Research Institutes and representative/s from TARAGram, Development Alternatives.</p>
<p>Leverage Resources for Implementing Pilot Adaptation Measures</p>	<p>Activity Completed</p> <p>Based on the findings in the project, DA has leveraged 0.75 million USD for 3 years from the Swiss Agency for Development Co-operation for piloting some of the potential adaptation measures. The pilots will target three vulnerable population groups – the farmers, the women and the rural artisans. It will provide them with solutions, necessary capacity building and innovative financing methods for reducing vulnerability. The project is also endorsed by the Core Group formed in the district as part of this project.</p>
<p>Evaluation of risk communication</p>	<p>Activity Completed</p> <p>An exercise for evaluating the impact of risk communication activities has been conducted using a combination of audio-video documentation and one-to-one interaction. The impact assessment of these communication methods used for rural communities revealed that :</p> <ol style="list-style-type: none"> 1. The nautanki had a more dominant impact as compared to the other two media i.e. the chart and the meeting 2. The response to the chart can be improved if the chart is of a bigger size and more pictorial in nature and located permanently at a prominent site 3. Meeting can make a strong impact if people are informed in advance and the agenda is kept focused <p>People would need to be taken into the next stage of information, participation and involvement regarding Adaptation practices</p>



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Dissemination of material	<p>Ongoing</p> <p>The material is currently being disseminated through a number of measures. Under the <i>Shubh Kal</i> campaign, DA is conducting knowledge dialogues on climate change and livelihood security for 3 social groups viz. farmers, women and artisans in 3 districts. The communication material developed under this project is being used to make the communities aware of the issues and engage them in information exchange and solutions finding under the dialogue. In addition, the research information generated in the project as well as the Shubh Kal brochure are being widely disseminated to various government and other agencies (e.g. NABARD, Tribal Development Fund, Swiss Agency for Development Co-operation) operating in the area for incorporating climate change in their activities</p>

B. Challenges encountered

During the implementation, the following challenges were encountered:

- Lack of data for Research: There were major constraints faced in accessing reliable data on weather, soils, agriculture etc. for the Bundelkhand region. For a long period of time, this held up the project and required considerable efforts and resources
- The region is extremely backward and survival of the people is at stake. In addition, many researchers come to the region for surveys but do not provide any solutions to people’s problems. The people therefore have become skeptical of any efforts to make them aware of anything and have a very high resistance to change. The communication strategy thus had to be devised to lower their resistance to change and make them receptive to the messages on climate change being communicated



II. Outputs

A. Project goals and objectives

The purpose of the project was “to improve the understanding of policy makers and vulnerable communities on issues governing the climate change adaptation process at a district level in India”.

The specific objectives of the project are to assess the vulnerability of the agriculture and the water sector, devise pragmatic adaptation strategies for these sectors and communicate the risk to all stakeholders concerned.

B. Important accomplishments of the project

- The project managed to bring the issue of climate change to the forefront at least in 1 district, which is where its primary focus was. By doing so, it managed to achieve the stated project purpose of improving understanding of policy makers on issues governing climate change adaptation and catalyzing them towards action through the formation and activation of the Core Group officially formed to carry forward the process
- The project also succeeded in generating new information i.e. existing and potential future climatic changes for the Bundelkhand region specifically. While earlier it was only believed that climatic changes were happening in the region, the data generated in this project provided concrete evidence and a scientifically assessed direction to what may happen in the future.
- The communication strategy devised in the project for vulnerable communities is an accomplishment since even after testing; it appears to be a feasible, effective and widely replicable one.



C. Key outputs of the projects and how these outputs were used or will be used.

Official Core Group: As previously mentioned, it is an official Group formed for climate change adaptation planning and implementation. It consists of representatives from key Government departments, Research Institutes and NGOs. This group will dwell on this issue in-depth and formulate and implement a district level action plan for the first time in India.

Communication Strategy and Products: The project has come up with a communication strategy and products for vulnerable communities and policy makers. These were also tested during the project and are being used extensively by DA and its partners for climate change communication in the region. The communication products include folk plays providing the climate change message, wall paintings, a banner and radio jingles currently being broadcast through Radio Bundelkhand. We plan to continue using these in a much more integrated manner in the future also.

Research Report Highlighting Impacts: While the project itself has generated scientific and other information relevant for vulnerability assessments, we plan to convert this into a useful booklet that can be used to disseminate our research findings to varied audiences. Currently, the Bundelkhand region is seriously being considered for an integrated development support by both the Central Government of India and that of the states. We will use the information generated in this project to influence the design of their programmes so as to include climate change consideration in them as well.